



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,141	09/09/2003	Masao Murade	116802	1897
25944	7590	04/05/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			LANDAU, MATTHEW C	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/657,141

Applicant(s)

MURADE, MASAO

Examiner

Matthew Landau

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/9/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-13 and 19, in the reply filed on January 14, 2005 is acknowledged. The traversal is on the ground(s) that a search and examination of the entire application could be made without a serious burden: This is not found persuasive because a serious burden does exist. For instance, a search for the step of "forming at least some of the members forming the capacitors and at least some of the members forming the storage capacitors as the same film" is not required in a search for the subject matter of the device claims.

The requirement is still deemed proper and is therefore made FINAL.

Claims 14-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on January 14, 2005.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, the limitation "the capacitor electrode wiring lines and the capacitors can be formed in the same step" renders the claim indefinite. A capacitor comprises at least two conductive layers with a dielectric layer between the conductive layers. It is unclear how a capacitor can be formed by a single step as claimed. For the purposes of this Office Action, it is considered that the claim language means that the capacitor electrode wiring and a conductive layer of the capacitor can be formed in the same step.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-10, 13, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishii (US Pat. 6,404,414).

Regarding claim 1, Figures 1-4(D) of Ishii disclose an electro-optical device, comprising: data lines 30 extending in a predetermined direction; scanning lines 20 extending orthogonal to the data line; pixel electrodes 55 and pixel switching elements 50 arranged at intersections of the scanning lines and data lines; and capacitors 85 including, as first electrodes, conductive layers

Art Unit: 2815

87A connected to the data lines. Note that the conductive layers 87A are connected to line 81, which is connected to the data lines 30 through a transistor as shown in Figure 1.

Regarding claim 2, Figures 1-4(D) of Ishii disclose capacitor electrode wiring lines 84 extending in a direction orthogonal to the data lines 30, the capacitors 85 including second electrodes that include other conductive layers 86 connected to the capacitor electrode wiring lines.

Regarding claim 3, the limitation “the capacitor electrode wiring lines having a fixed potential” is merely a functional/intended use limitation that does not structurally distinguish the claimed invention over the prior. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). The capacitor electrode wiring lines 84 of Ishii are capable of having a fixed potential if the appropriate voltage is applied.

Regarding claim 4, Figures 1-4(D) of Ishii disclose a substrate 10; a counter substrate (col. 7, lines 59-61) facing the substrate; a counter electrode formed on the counter substrate (col. 7, lines 59-61) and arranged to face the pixel electrodes; and a driving circuit 60/70 arranged on the substrate 10 that drives the scanning lines, the data lines, and the pixel electrodes. It is inherent that a power source (first power source) supplies a potential to the counter electrode and that another power source (second power source) supplies a potential to the driving circuit. Ishii discloses the capacitor electrode wiring lines 84 are connected to the same power source as the

Art Unit: 2815

counter electrode (the first power source) (col. 7, lines 59-61). The limitations “that supply a fixed potential...” are merely functional/intended use limitations that do not structurally distinguish the claimed invention over the prior. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 5, Ishii discloses the capacitor electrode wiring lines 84 are made of a low resistance material (doped poly) (col. 12, lines 41-44).

Regarding claim 6, Figure 1 of Ishii discloses a data line driving circuit 60 that drives the data lines 30 at one end of the data lines, the capacitors 85 being provided at the other end of the data lines.

Regarding claim 8, Figures 1-4(D) of Ishii disclose storage capacitors (not labeled) connected to the pixel electrodes and the pixel switching elements. The product-by-process limitation “such that, during manufacturing, at least some of the members forming the capacitors can be formed...” does not structurally/patentably distinguish the claimed invention over the prior art.

Regarding claim 9, as best the examiner can ascertain, Figure 4(D) of Ishii discloses the capacitor electrode wiring lines 84 can be formed in same step as a conductive layer 86 of the capacitors 85.

Art Unit: 2815

Regarding claim 10, Figures 1-4(D) of Ishii disclose bypass layers 81 connected to the data lines 30 and the conductive layers 87A. Ishii further disclose that bypass layers 81 are formed in the same step as the scanning lines 20 (col. 11, lines 17-20).

Regarding claim 13, it can be considered that the data lines 30 (shown in Figure 1 of Ishii) are divided into a plurality of groups, wherein each group comprises two data lines. The limitation “to which image signals are simultaneously supplied” is merely a functional/intended use limitation that does not structurally distinguish the claimed invention over the prior. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 19, it is inherent that the electro-optical device disclose by Figures 1-4(D) of Ishii is part of an electronic apparatus.

Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Toyota et al. (US PG Pub 2002/0154252, hereinafter Toyota).

Regarding claim 1, Figures 2 and 3 of Toyota disclose an electro-optical device, comprising: data lines 38 extending in a predetermined direction; scanning lines 37 extending orthogonal to the data lines; pixel electrodes 13 and pixel switching elements 34 arranged at intersections of the scanning lines and the data lines; and capacitors 36 including, as first electrodes, conductive layers 8 extending from (in a direction orthogonal to) the data lines.

Regarding claim 12, Figure 3 of Toyota discloses portions to be the first electrodes of the conductive layers 8 being wider than the data lines 38.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii in view of Murade (US PG Pub 2001/0022572).

Regarding claims 7 and 11, Figure 1 of Ishii discloses a data line driving circuit 60 that drives the data lines at one end of the data lines. The difference between Ishii and the claimed invention is a test circuit that checks the operation of the electro-optical device at the other end of the data lines. Murade discloses a test circuit in the peripheral area of an electro-optic device (page 18, paragraph [0165]). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of Ishii by including test circuit for the purpose of testing the quality or detect a defect in the liquid crystal apparatus during the production process or before shipment (page 18, paragraph [0165] of Murade).



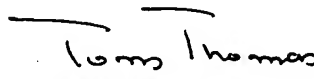
Art Unit: 2815

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (571) 272-1731.

The examiner can normally be reached from 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Matthew C. Landau

  
TOM THOMAS

SUPERVISORY PATENT EXAMINER

Examiner

April 2, 2005